

In the Claims:

Claims 1 to 10 (Canceled).

1 11. (New) A sensor transponder (1) with a facility for
2 transmitting measurement data from a tire (9) to a
3 receiving facility and at least one acceleration sensor,
4 characterized in that the sensor transponder (1) is fitted
5 on an inner side of the running surface (2) of the
6 tire (9).

1 12. (New) The sensor transponder (1) according to claim 11,
2 characterized in that as a receiving facility, a receiving
3 antenna is fitted, which is preferably arranged in a
4 vehicle.

1 13. (New) The sensor transponder (1) according to claim 12,
2 characterized in that the receiving antenna is also
3 designed as a transmitting antenna.

1 14. (New) The sensor transponder (1) according to claim 11,
2 characterized in that the sensor transponder (1) comprises
3 a memory for tire-specific parameters.

15. (New) The sensor transponder (1) according to claim 11, characterized in that the sensor transponder (1) comprises at least one pressure sensor.

16. (New) The sensor transponder (1) according to claim 11,
characterized in that the sensor transponder (1) comprises
at least one temperature sensor.

17. (New) The sensor transponder (1) according to claim 11,
characterized in that a central unit is fitted and the
evaluation of the signals from the sensor transponder (1)
is conducted in the central unit.

18. (New) A procedure for calculating a tire contact length (6), whereby a sensor transponder (1) is fitted with at least one acceleration sensor arranged on the inner side of a running surface (2) of a tire (9), the signals from the acceleration sensor are compared with threshold values and are then integrated, and the tire contact length (6) is calculated independently of the velocity using quotient formation.

19. (New) The procedure according to claim 18, characterized in that the tire contact area (tread) is calculated from the tire contact length (6) using tire-specific parameters.

1 20. (New) The procedure according to claim 19, characterized in
2 that the wheel load is calculated using the tire contact
3 area and the tire pressure.

[REMARKS FOLLOW ON NEXT PAGE]